

## Hingtgen, Robert J

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**From:** Duarte, Dolores@Wildlife <Dolores.Duarte@wildlife.ca.gov>  
**Sent:** Monday, March 03, 2014 12:46 PM  
**To:** Hingtgen, Robert J  
**Cc:** Hollenbeck, Eric@Wildlife; Courtney, Betty@Wildlife; Sevens, Gail@Wildlife; Doreen\_Stadtlander@fws.gov  
**Subject:** Copy of comment letter Re: Soitec Solar Devt/San Diego Co/SCH 2012061068  
**Attachments:** pdf Soitec Solar Devt SD Co.pdf

Mr. Hingtgen,  
Please see attached copy for your records. Original will follow.

If you have any questions, please contact Eric Hollenbeck at (858) 467-4289. Thank you!

*Dolores Duarte  
Regional Manager Secretary  
Department of Fish and Wildlife-South Coast Region 5  
3883 Ruffin Road, San Diego, CA 92123  
Phone #: (858) 467-2702 /Fax #: (858) 467-4239  
Work Schedule: 7:30am-5:00pm*





State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
South Coast Region  
3883 Ruffin Road  
San Diego, CA 92123  
(858) 467-4201  
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor  
CHARLTON H. BONHAM, Director



March 3, 2014

Mr. Robert Hingtgen  
County of San Diego  
Department of Planning and Development Services  
5510 Overland Avenue, Suite 110  
San Diego California 92123  
Robert.Hingtgen@sdcounty.ca.gov



**Subject: Comments on Draft Programmatic Environmental Impact Report for Soitec Solar Development, San Diego County (SCH# 2012061068).**

Dear Mr. Hingtgen:

The California Department of Fish and Wildlife (Department) has reviewed the Draft Programmatic Environmental Impact Report (DPEIR), dated January 2, 2014, for the Soitec Solar Development Project (Project). The Project would allow for the construction of four solar farms (Tierra del Sol, Rugged Solar, LanEast, and LanWest), located in southeastern San Diego County. The Project would encompass approximately 1,490 acres within the Mountain Empire Subregional Plan, near the community of Boulevard, in unincorporated San Diego County. The Project would utilize concentrated photovoltaic (CPV) technology to produce up to 168.6 megawatts (MW).

**DFG Jurisdiction:**

The following statements and comments included in Attachment A have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the Project (California Environmental Quality Act Guidelines § 15386) and as a Responsible Agency under CEQA Guidelines Section 15381 over those aspects of the Project that come under the purview of the California Endangered Species Act (CESA – Chapter 1.5 of the Fish and Game Code), and/or require a Lake and Streambed Alteration Agreement Fish and Game Code § 2050 *et. seq.*). The County also participates in the Department's Natural Community Conservation Planning program (NCCP; Fish and Game Code § 21000 *et. seq.*) through a signed/permitted South County Multiple Species Conservation Program (MSCP) and the draft East County Plan for which the Mountain Empire Subregional Plan is a part.

1. Given the programmatic nature of the environmental document, the Department acknowledges that the Lead Agency is not obligated to fully analyze subsequent activities for which insufficient data exists. However, Findings of Significance should only be made when those Findings are supported by substantial evidence in the record (CEQA § 15091(b)). For those aspects of the Proposed Project that have not been fully studied, Findings of Significance should be set aside.
2. Both LanEast and LanWest sites are programmatically addressed within the PDEIR. Some information (e.g., a jurisdictional delineation) is provided for LanWest, but is not

Mr. Robert Hingtgen  
County of San Diego  
March 3, 2014  
Page 2 of 2

provided for LanEast. Additionally, both LanEast and LanWest warrant additional biological studies specific to each site.

3. The PDEIR does not specifically identify the Los Robles Solar site within the Project Description and is first introduced within the Project Alternatives. Given the absence of information on the Los Robles Solar site in the PDEIR the Department's consideration of any Project Alternatives involving the Los Robles Solar site is constrained. Similarly, the Department is concerned that the PDEIR's analysis used to identify the environmentally superior alternative relies heavily on a Project Site which is poorly described and studied.
4. Considering the incomplete data provided for LanEast, LanWest, and the Los Robles Site, the Department recommends that the Lead Agency withhold Findings of Significance of environmental effects which are not supported by substantial evidence in the PDEIR. A subsequent CEQA document can be prepared to address effects of any activity not included in the scope of the analysis of the programmatic document. At that time, to address broad-scale impacts, the programmatic document may be incorporated by reference while the subsequent CEQA document can address site-specific impacts.

Thank you for this opportunity to comment on the DPEIR. Questions regarding this letter and further coordination regarding these issues should be directed to Eric Weiss, Senior Environmental Scientist (Specialist) at (858) 467-4289 or [Eric.Weiss@wildlife.ca.gov](mailto:Eric.Weiss@wildlife.ca.gov).

Sincerely,



Edmund Pert  
Regional Manager  
South Coast Region

ec: California Department of Fish and Wildlife  
Betty J. Courtney, [Betty.Courtney@wildlife.ca.gov](mailto:Betty.Courtney@wildlife.ca.gov)  
Gail Sevens, [Gail.Sevens@wildlife.ca.gov](mailto:Gail.Sevens@wildlife.ca.gov)

US Fish and Wildlife Service  
Doreen Stadtlander, [Doreen\\_stadtlander@fws.gov](mailto:Doreen_stadtlander@fws.gov)

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**Subject:** RE: Copy of Attachment- comment letter Re: Soitec Solar Devt/San Diego Co/SCH  
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**Attachments:** Attachment Soitec Solar Devt.docx

I apologize for not attaching this. I'm sorry.

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**Appendix A**  
**Specific Comments on the Draft Programmatic Environmental Impact Report**  
**For the Soitec Solar Development, San Diego, County**

**SCH# 2012061068**

The Department offers the following comments on the Draft Programmatic Environmental Impact Report for the Soitec Development. These comments and recommendations are intended to guide the Lead Agency to specific areas of the PDEIR that are of concern to the Department.

*Project Description:*

(Page S.0-1; Page S.1.1) The DPEIR states that "Currently, the applicants are seeking project-level approvals for the Tierra del Sol and Rugged solar farms, which are analyzed at a project-level of detail in this Program EIR. The LanEast and LanWest solar farms are analyzed at a programmatic level, *"because sufficient project-level data has not been developed at this time."* A project-specific, focused EIR, or other CEQA document would need to be prepared to augment the PDEIR's analysis to adequately address project-specific impacts in conformance with CEQA (CEQA Guidelines § 15168(a)). Additionally, the Los Robles site is not described in the PDEIR's project description. The Department would expect that: 1) the project description include the full breadth of proposed activities and, 2) conclusions regarding significance of impacts would be reserved from the DPEIR and articulated in subsequent project-specific CEQA environmental analysis for any location which is not specifically or fully identified or evaluated (e.g., LanEas, LanWest, and Los Robles).

*Consistency with the draft East County MSCP:*

The Department has worked cooperatively with the Service, the San Diego County (County) and other stakeholders to develop a conceptual comprehensive strategy for the draft East County MSCP. The draft East County MSCP facilitates comprehensive planning by identifying focused conservation areas (FCAs) and areas of development outside of FCAs. FCAs are areas identified by the draft East County MSCP where conservation and mitigation are anticipated in order to assemble the East County MSCP preserve (Independent Science Advisor's Documentation Binder/Workshop #1, February 2006 and the January 2007 Workshop). The Project was presented to the Wildlife Agencies on June 27, 2013 as part of the interim review process for East County MSCP. A site visit for Tierra del Sol and Rugged Solar was conducted on October 25, 2013, in coordination with the County.

The DPEIR (Page 2.3-173) states: "The Project is not covered by an MSCP. Although the East County MSCP has not yet been adopted, the Project is consistent with the plan's goals and objectives applicable to regional planning efforts and does not preclude or prevent the implementation of the subregional NCCP." While we acknowledge that the East County MSCP has not yet been adopted, Section 6.6 and Attachment B of the North and East County MSCP Planning Agreement does suggest that in reviewing interim projects, the Wildlife Agencies should: 1) consider whether proposed development is consistent with the preliminary conservation objectives; and 2) ensure that development does not compromise the successful completion and implementation of the MSCP.

Under the Regional Overview (Section 2.3.1.2, Page 2.3-3) of the DPEIR the following position is stated "... [t]he County and wildlife agencies review projects using the interim processing guidelines in Section 6.6 and Exhibit B of the MSCP East (and North) Planning Agreement and the Focused Conservation Areas map, and those projects that achieve conservation requirements when that review is completed are deemed consistent with the draft MSCP East Plan's Preliminary Conservation Objectives. At that time, per the MSCP Framework Plan EIR/EIS, the projects will have the benefits of having cumulative impacts under CEQA addressed to proposed covered species such as raptors, including the golden eagle." The

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**Appendix A**  
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**SCH# 2012061068**

Department is unclear of the intent of the statement (page 2.3-35) and whether a conclusion to address cumulative effects of the project will be a project-by-project analysis or assume the project is covered under the MSCP framework.

(Page 1-12) According to the DPEIR, to reduce fugitive dust and erosion, either a permeable nontoxic soil binding agent, use of an aggregate base material or a combination of the two will be utilized. The Department recommends that the DPEIR specify and evaluate the potential biological effects that the soil binders may pose to aquatic and biological resources. The DPEIR's analyses should include an evaluation of the specified product's persistence over time in saturated and unsaturated conditions.

(Page 1-20) The DPEIR anticipates the annual application of soil binders. Use of soil binders would require approximately 3,300 gallons of water per acre, per annum. The Department suggests the Lead Agency consider requiring the alternatively proposed base material application (e.g., decomposed granite) in lieu of soil binding agents. The continual need for water consumption and potentially detrimental effects to biological resources over the operational life of the Project could be considerable.

*Tierra del Sol:*

(Page 1-26) "The remaining portions of the line that is underground would be directly buried with conductor rated for direct burial that meets industry standards. The trench sizes and construction methods would be similar as stated above for the duct bank lines in the ROW. The only exception is that the direct buried lines would be encased in 1 foot of sand material and would not require encasing with a slurry or concrete." The Department recommends that, similar to the underground collection system, all reaches of the underground transmission line is ducted or otherwise installed within a protective conduit.

*LanEast and LanWest:*

(Page 2.3-114) The DPEIR repeatedly states that both LanEast and LanWest are evaluated at a programmatic level warrant additional information prior to conducting an environmental analysis. The Department agrees that both LanEast and LanWest (in addition to the Los Robles site) warrants additional study, to include, but not limited to, raptor specific studies evaluating wintering, migratory, and breeding use of the sites. The DPEIR, under Project Effects Relevant to Guideline E for LanEast and LanWest identifies a "no impact" determination for Golden Eagle and a "potentially significant" impact to raptor species. The "no impact" determination for LanEast and LanWest on golden eagle is not supported (see discussion below) by the information provided. According to the Wildlife Research Institute (WRI) report for Golden Eagle (WRI, April 2013), LanEast and LanWest are located in the western edges of both the Carrizo Gorge and Table Mountain golden eagle territories. The assessment of the Carrizo Gorge and Table Mountain territories has been established through the use of VHR technologies, and has not yet benefited from the additional data points which GPS transmitters may provide. While the Boulevard golden eagle territory has not been active for decades, as identified in the WRI report, neighboring territories may subsume all or portions of the Boulevard territory in an attempt to defray the effects of habitat degradation. The Department remains optimistic that, with proper planning, the Boulevard territory may become active in the future. Very little biological information specific to LanEast or LanWest exists to gauge either site's potential to impact species. The DPEIR does not provide the Department sufficient data to assess whether developing LanEast or LanWest would have a significant impact on biological resources. The



**Appendix A**  
**Specific Comments on the Draft Programmatic Environmental Impact Report**  
**For the Soitec Solar Development, San Diego, County**

**SCH# 2012061068**

Department recommends that the Lead Agency remove any determination of significance regarding the development of LanEast or LanWest until additional studies are conducted on which a biological significance determination can be based. This determination could then be incorporated in subsequent CEQA documentation under the Programmatic DPEIR.

(Page 2.3-117) The DPEIR concludes neither LanEast nor LanWest would significantly impact the viability of core wildlife areas. The Department is concerned that a significance determination is made on the impacts to wildlife movement absent site-specific biological surveys. Without this information, the full breadth of species which may be represented on either LanEast or LanWest and the level of impacts associated with the development of either site is not well understood. Without a landscape-scale plan or implementing agreement for the East County MSCP, the Department cannot evaluate if wildlife movement (e.g., genetic exchange) would persist following the development of the Project.

Page 2.3-72 and 73 (2.3.1.5 LanEast) of the DPEIR indicates that, “[a] jurisdictional delineation has not yet been conducted for this site and will be conducted prior to construction. However, an RPO buffer of an appropriate width would be established around any identified riparian wetland to protect the functions and values of the wetland. Walker Creek crosses the project site and is considered an RPO wetland; this will be confirmed when a formal jurisdictional delineation is completed.” The jurisdictional delineation for LanEast should be conducted as part of the project-specific review for the project and results with any recommend buffers disclosed in the final DPEIR.

Page 2.3-81 (LanWest-Hydrologic Context and Connectivity): This section of the DPEIR states that, “...[a] 50-foot wetland buffer is proposed around the riparian wetland (vegetated swale) in the southern portion of the project site to protect the functions and values of this existing wetland (Figure 2.3-18) (Appendix 2.3-4).” For all wetland jurisdictional areas, we recommend that a minimum 100-foot buffer be provided to maintain existing functions and values; where these areas serve as local/regional movement areas, larger buffers may be necessary.

(Page 2.3-132, 2.3.-195) The DPEIR includes a concluding statement in section 2.3.7 stating that significant impacts to potentially jurisdictional areas of the LanEast and LanWest projects would be reduced to a level of less than significant with the incorporation of mitigation. However, a jurisdictional delineation for LanEast has not been included in the DPEIR. Accordingly, a significance determination should not be made on LanEast until such time that sufficient environmental data has been evaluated and disclosed within an environmental document. Any determination made absence this information is currently not supported in the DPEIR.

*Los Robles:*

Based on the information provided in the DPEIR, the Los Robles alternative site is not clearly identified in the DPEIR's project description and is analyzed at the programmatic level similar to LanWest and LanEast. Yet, the environmentally superior alternative (Alternative 7) identified in the DPEIR relocates Tierra Del Sol, Land East, and LanWest to the Los Robles location without Los Robles ever being identified within the project description (Section 1.2) or providing an analysis of the resources unique to the Los Robles site. The Department recommends that findings of significance be deferred for any project alternative utilizing the Los Robles Project until a biological analysis can be completed, specific to Los Robles. Chapter 1.2 of the DPEIR (Project Description) discusses the Rugged Solar site, and Tierra del Sol locations within the project description, noting that both the LanEast and LanWest locations are analyzed within the

**Appendix A**  
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**SCH# 2012061068**

DPEIR at a programmatic level but fails to mention the Los Robles site for consideration at either a project or programmatic level. A majority of the resource studies presented in the DPEIR focus on Rugged Solar, Tierra del Sol and LanWest; little mention of the resources specific to Los Robles are found within the DPEIR. The Department recommends deferring proposals for the Los Robles site until site-specific biological studies of sufficient breadth and timing to provide opportunity to evaluate the potential impacts or merits of the Los Robles site in the DPEIR. Absent the requested biological resource reports, the Department cannot support any conclusions drawn with regard to the Los Robles site and any potential project-related environmental impacts.

*Gen-tie:*

(Page 1.0-5) "A collection system linking the trackers to the on-site project substation consisting of (1) 1,000-volt (V) DC underground conductors leading to (2) 34.5 kV underground and overhead AC conductors." Transmission lines have the potential to impact avian species. Impacts range from direct line strikes, electrocution from arcing (particularly problematic with small span electrical poles) or nesting activities. The Department recommends that the DPEIR consider undergrounding smaller lines and collection systems in addition to transmission lines to minimize potential avian impacts. It is recommended that all electrical cable are routed through a conduit to limit potential ground faults and or electrocutions associated with fossorial animals.

(Page 1-16) "Overhead components at each project site would be regularly inspected for corrosion, equipment misalignment, loose fittings, and other mechanical problems and repaired as required. The underground portion of the cable systems would be inspected and repaired if and when problems occur." The DPEIR should identify the anticipated occurrence intervals for each inspection activity, types of equipment and personnel, and discusses the merits of each strategy. To the extent feasible, the Department recommends coordinating operations and maintenance activities including helicopter line inspections, national security flights, and brush or weed abatement coincident with the Tule Wind, and other utility projects to limit redundancy and minimize ongoing biological impacts (Page 1.0-5).

*Project Alternatives:*

The Department is concerned with the scope and range of alternatives analyzed. The DPEIR takes a broad, two-tiered approach towards minimizing impacts associated with the various project alternatives by either: 1) reducing the physical footprint or number of developed sites (including undergrounding the Tierra del sol gen-tie line) or, 2) relocating various sites (DPEIR Page 4.0-2) to the Los Robles site. The alternative location proposals (Alternatives 5, 6, 7, & 8) utilize the Los Robles site, a site for which the DPEIR does not provide site-specific biological information.

Additionally, the Department believes that the reduced project alternatives have not fully evaluated the relocation or abandonment of the Rugged site. All alternatives excepting Alternative 9 (the no build alternative) include the Rugged site. The DPEIR should explore alternatives which would relocate or discontinue the development of the Rugged site.

Reduce Project Alternative 1 reduces the overall footprint of each of the project sites, and provides increased visual buffers (DPEIR, Page 4.0-8). However, the footprint reduction appears to be aesthetically driven with increased setbacks along public right of ways. The Department recommends that each reduced project alternative discuss the biological implications of providing larger project buffers in the DPEIR.

**Appendix A**  
**Specific Comments on the Draft Programmatic Environmental Impact Report**  
**For the Soitec Solar Development, San Diego, County**

**SCH# 2012061068**

The analysis for the reduced Project and underground Tierra del Sol gen-tie (Alternative 3, DPEIR Page 4.0-18) identifies that the undergrounding of an additional 3.5 miles of gen-tie would increase the impacts to biological resources including coast live oak woodlands and jurisdictional wetlands. Consideration should be given to realigning the underground gen-tie line to maximally avoid biologically sensitive receptors. In certain instances underground gen-tie lines may prove to be less biologically impactful than overhead configurations. The Department recommends that the DPEIR further explore potential alignments of the underground gen-tie which may avoid sensitive receptors.

According to the DPEIR Alternative 5 (Page 4.0-27), "Since the Los Robles site is located within the same general area as the Tierra del Sol site, vegetation communities on site are anticipated to be similar, and the site would support similar plant and wildlife species." Similarly, the comparison of alternative 5 with that of the Project surmises that impacts to special-status species, jurisdictional resources, wildlife movement, and conformance with regional plans would be mitigated to a level of less-than-significant. Simply because two project sites may either be located within the same general area or support generally comparable vegetation communities does not necessarily mean that by extension, the two serve the same biological function. Although two sites may be similar, they may host a suite of differing species. The Department again recommends site-specific analysis.

Alternative 6 proposes the relocation of LanEast and LanWest to the Los Robles site (Alternative 6) draws similar significance conclusions as Alternative 5 and lacks the same detail described and requested in the above comment (See comment regarding Alternative 5). Alternative 6 (Page 4.0-36) also states that the "...Los Robles site would incorporate mitigation similar to the Project..." Absent the addition of site-specific biological information, it would be premature for the Department to either agree or disagree that the mitigation for the Project or Alternative 6 (Los Robles) would be similar.

The DPEIR identifies Alternative 7 as the environmentally superior alternative. This alternative would relocate three of the proposed solar sites (LanEast, LanWest, and Tierra del Sol) to the Los Robles site, and maximize the development of concentrated solar photovoltaic (CPV) at the Los Robles site. The Los Robles site is not mentioned in the DPEIR project description, nor is site-specific data or analysis of the site provided. The Department has great concern that an environmentally superior alternative has been selected which includes the significant development of a location sparsely discussed in the DPEIR.

Alternative 7 and Alternative 8 draw similar conclusions as described in Alternatives 5 and 6 asserting that impacts resulting from the relocation of the LanEast, LanWest and Tierra del Sol (an aggregate of 708 acres) would be similar to the Project and that impacts to special-status species, jurisdictional resources, wildlife movement, and conformance with regional plans would be mitigated to a level of less-than-significant. This conclusion is not substantiated with biological studies specific to the Los Robles site and assumes that an increasing footprint within the Los Robles Site (Alternative 5, Alternative 6, Alternative 7, and Alternative 8 respectively) would do nothing to influence the analysis, avoidance or mitigation as it pertains to the biological resources or influence on the draft East County MSCP. The Department recommends that the DPEIR provide a detailed analysis of the potential impacts of each alternative presented in the DPEIR.

**Appendix A**  
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**SCH# 2012061068**

*Mitigation:*

In a December 4, 2013 joint letter from the Wildlife Agencies to the project proponent (copy provided to the Lead Agency), the Wildlife Agencies expressed concern that without knowing the breadth of the Project, including where the actual impacts and mitigation would occur, the overall value of the proposed mitigation could not be determined. The Department remains unclear as to the extent and location of project impacts, and accordingly whether commensurate mitigation for the Project impacts has been provided. For example, without knowing the configuration of the Los Robles site the Department is unable to adequately evaluate how the Project would affect the ability to assemble the draft East County MSCP preserve. The Department requests the DPEIR include a complete and comprehensive discussion of each of the solar farm's impact areas and mitigation areas. Additionally, the Department requests that the mitigation site is quantified and biologically inventoried. An analysis of how the proposed mitigation site would be impacted by surrounding development, including solar and other renewable energy uses, should be included.

Any mitigation should be located within the draft East County MSCP FCA (or other area acceptable to the Wildlife Agencies) and help to contribute to regional connectivity. Mitigation proposals should include the following: 1) a qualified land manager with financial assurances in place to manage land in perpetuity; 2) a final resource management plan and land manager approved by the County and the Wildlife Agencies; and 3) a biological conservation easement recorded over the mitigation property. 4) Maintain regional connectivity. From a regional connectivity perspective, the overall value of the mitigation site diminishes if a connection linking the property to lands to the north and through I-8 cannot be provided.

In the DPEIR, Special Status County List II (2) Wildlife Species, and County list C and D Special-Status Plant Species are assumed to be adequately represented in a habitat-based mitigation paradigm. Absent an adopted and permitted regional conservation plan (i.e., East County MSCP), we are unclear that mitigation assurances have been thoroughly supported in the DPEIR. Therefore, project-related impacts should be evaluated and mitigated on a project-specific basis until which time a plan or preserve assemblage and structure is approved by the County and Wildlife Agencies.

*Ongoing Monitoring and Adaptive Management:*

While the DPEIR acknowledges the Project's potential to significantly impact birds, the Department remains concerned with the potential impact to both bird and bat species. The effects of utility-scale renewable energy is an emerging issue and of growing concern to the Department. Utility-scale renewable energy presents a variety of potential challenges including, but not limited to, direct and indirect effects of loss of foraging habitat, loss of breeding habitat, direct mortality, increased anthropogenic pressures, and navigational disruptions during migration.

Though not specific to birds or bats, a recent study suggests that flat, reflective surfaces (such as solar panels) can polarize natural light, which may serve as ecological traps and impact multiple animal taxa (Horváth, et al, 2009). The Department acknowledges that assessing the potential Project impacts on avian species is challenging, the Department believes that the Lead Agency has an opportunity to require a scientifically rigorous monitoring and management program as part of the project mitigation. Such a program could provide valuable insight for adaptive management strategies for the Project and better inform the community of the potential impacts of utility-scale renewable energy projects.

**Appendix A**  
**Specific Comments on the Draft Programmatic Environmental Impact Report**  
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**SCH# 2012061068**

The Department Recommends that the DPEIR incorporate the following: 1) a nesting bird monitoring component for each solar farm; and 2) a full-term avian bird and bat protection and monitoring plan, as a project mitigation measures. Both plans should include provisions for informing and involving the Lead Agency and Wildlife Agencies as an adaptive management component. The Department recognizes that the dual axis tracking technology affords the ability for the solar panels to be stored vertically during times of low (no) production (night). The vertical stowage of the solar panels is anticipated to assist in mitigating potential impacts to avian species during the night. In addition to this measure, the Department also suggests that the adaptive management component of the Project include the partitioning of the solar panel technology utilizing a non-reflective grid pattern (similar to Horváth, et al, 2009), experimental application of film overlays, and comparison of CPV technologies to that of photovoltaic technologies.

*Wildlife Movement:*

Impacts to wildlife movement in the vicinity of Interstate Highway-8 (I-8), near the LanEast and LanWest proposed project site, should be analyzed further in the DPEIR and include an evaluation of usage patterns for the existing culverts under I-8 that provide a north-south connection. Any development on these sites would need to ensure that existing wildlife movement is maintained and that any regional connections for the East County MSCP would not be precluded. Based on field data collected on December 15, 2013 and January 15, 2014 for the I-8 in the Boulevard area, and LanEast has existing culverts located directly north within Caltrans right-of-way (ROW) that connect areas north of I-8 to areas south of I-8 and provide some wildlife value for connectivity through I-8 in this area of East County. We recommend that any development on LanEast, LanWest or Los Robles contribute to a minimum 1,000 foot buffer for north-south wildlife movement across I-8, unless specific studies are conducted that determine a smaller buffer is adequate. In addition, in order to augment the viability of any proposed wildlife corridor the Department suggests implementing strict project lighting conditions. Project-related illuminance should be limited to the direct project footprint s and monitored to ensure the luminance from the Project-related lighting is negligible as measured at the wildlife corridor. Given the relatively narrow corridor, all lighting conditions should incorporate ongoing monitoring and an adaptive management component. The Wildlife Agencies are available to work with the solar site operator to ensure a fully functioning wildlife corridor.

(Page 2.3-149) The DPEIR indicates that the east-to-west visual continuity of the Tule Creek wildlife corridor may be impacted by the presence of the solar panels and fencing. The Department believes that the visual continuity could be greatly disrupted for wildlife, particularly nocturnal wildlife movement patterns. The Department acknowledges that the solar panels will be stowed in a vertical position during the evening. While the vertical stowage of the panels may be an important operational component to diminish the "lake effect" for avian species, it will nonetheless emulate a 30-foot tall fence for wildlife attempting to move through the area. The Department recommends that a focused wildlife movement study evaluate the visual effect the solar panels may have on the wildlife corridor along Tule Creek.

Section 3.1.1.1 (Existing Conditions) of the DPEIR should include a description of existing culverts on site at the LanEast (3.1.1.1.4) and LanWest (3.1.1.1.5) properties. This discussion should also be included in page 3.1.5-11 (3.1.5.1.4 LanEast), which discusses existing topography, hydrology and drainage patterns on site.

**Appendix A**  
**Specific Comments on the Draft Programmatic Environmental Impact Report**  
**For the Soitec Solar Development, San Diego, County**

**SCH# 2012061068**

*Project Lighting:*

(Page 1-10) According to the PDEIR "All lighting for the solar farms would have bulbs that do not exceed 100 watts, and all lights would be shielded, directed downward, and would comply with the County of San Diego Light Pollution Code Section 59.101 et seq." The Department recommends that the DPEIR condition lighting based on luminosity or a metric which measures the amount of light generated or light received at a given receptor. The County has adopted a standard of 4550 lumens (the County of San Diego Light Pollution Code Section 59.101 et seq.). Given the rural nature of the Project area and ability to enable wildlife movement, the Department suggests that the Lead Agency adopt Zone A standards contained in the County of San Diego Light Pollution Code Section 59.101 et seq.

*Mitigation Measures:*

(Page 2.3-177) M-BI-PP-2: In accordance with mitigation measure M-BI-PP-2, the biological monitor will "Flush special-status species (i.e., avian or other mobile species) from occupied habitat areas immediately prior to brush-clearing and earthmoving activities..." The Department is concerned that this mitigation measure may be misinterpreted to allow for the take of CESA or Endangered Species Act, or to allow or cause the abandonment of active avian nests in violation of the federal Migratory Bird Treaty Act or Fish and Game Code sections 3503, 3503.5 or 3513. The Department advises that the proposed mitigation measure is revised to reflect that no take (Fish and Game Code § 86) is authorized. The mitigation measure should require an avian specific biological monitor to ensure compliance with the relevant Fish and Game Code.

(Page S.0-25) BI-TDS-12/M-BI-PP-6: "Prior to installation of any landscaping, plant palettes shall be reviewed by the Project Biologist to minimize the effects that proposed landscape plants could have on biological resources outside of the project footprint due to potential naturalization of landscape plants in the undeveloped lands. Landscape plants will not include invasive plant species on the most recent version of the Cal-IPC California Invasive Plant Inventory for the project region. Landscape plans will include a plant palette composed of native species that do not require high irrigation rates." The Department recommends that the Lead Agency retain purview over planting palettes to ensure conformance with the DPEIR's analysis.

(Page 2.3-181) BI-TDS-4/M-BI-PP-10: Mitigation measure M-BI-PP-10 states that "Standard buffer widths deemed adequate to avoid or minimize significant project-related edge effects (disturbance) on nesting birds and their nests, eggs, and chicks". The Department is concerned that the DPEIR is providing a standard nesting buffer surrogate to the Department's historically recommended spatial and temporal buffers.

In our review of measure M-BI-PP-10 which specifies that nesting buffer requirements will be based on: individual nesting chronologies, geographic location, existing ambient conditions, visibility of disturbance, duration of disturbance, timing of disturbance, influence of other environmental factors, an individual's level of habituation to disturbance, and a comparison of the project-related disturbance with existing baseline conditions. The Department has historically recommended that 300-foot buffers for passerine species and 500-foot buffers for raptors have been sufficiently protective of most species, a majority of the time. Absent adopting a similarly or more protective buffer the Department does not believe adequate protection is afforded when relying on a lesser default buffer. The Department is unclear how the newly established "standard buffer" widths will assist the Project Applicant in complying with Fish and Game Code sections 3503, 3503.5 or 3513. The Department recommends either adopting

**Appendix A**  
**Specific Comments on the Draft Programmatic Environmental Impact Report**  
**For the Soitec Solar Development, San Diego, County**

**SCH# 2012061068**

buffers sufficiently protective to be generally applied or alternatively to require an individual analysis for each nesting event addressing: nest chronologies, geographic location, existing ambient conditions, visibility of disturbance, duration of disturbance, timing of disturbance, influence of other environmental factors, and an individual's (as opposed to the conspecific level of habituation detailed in the DPEIR) level of habituation to disturbance, and a comparison of the project-related disturbance with existing disturbances.

(Page S.0-21) BI-TDS-4/M-BI-PP-10: In accordance with mitigation measure M-BI-PP-10 the avian biologist shall "Conduct preconstruction nesting bird surveys within 72 hours of construction-related activities and implement appropriate avoidance measures for identified nesting birds." During the breeding season, it would not be uncommon for a nest (or multiple nests) to become active within a 72-hour timeframe. The Department recommends the 72 hour surveys be followed up by a preconstruction sweep immediately prior to ground disturbing activities.

(Page S.0-22) BI-TDS-4: Mitigation measure M-BI-PP-10 also specifies that "The NMLs will allow for tracking the success and failure of the buffers and will provide data on the adequacy of the buffers for certain species." The Department recommends that the Lead Agency identifies thresholds identifying levels of impacts to nests which would prompt the Lead Agency to initiate remedial actions. Remedial actions should include increasing temporal or spatial buffers and increasing monitoring efforts. The Department should be notified should the project exceed said thresholds, and consultation with the Wildlife Agencies should follow.

(Page S.0-20) BI-TDS-3/M-BI-PP-11: Mitigation Measure M-BI-PP-11 requires the applicant to "Cover and/or provide escape routes for wildlife from excavated areas and monitor these areas daily." Monitoring should occur at least twice daily to minimize undue predation, exposure or stress to trapped animals.

(Page S.0-27) M-BI-PP-12: The Department recommends that the minimization and direction of night lighting (both during construction activities and during operations and maintenance) should be detailed in M-BI-PP-12 as a quantifiable standard. The Department recommends that the measure currently in the DPEIR be revised to identify that sensitive receptors (e.g., wildlife corridors, and riparian areas) will be monitored for impacts from illuminance, and that artificial lighting will be both measured and limited at the receptor site.

(Page S.0-27) BI-TDS-15/M-BI-TDS-1: "Provide evidence to the Director of PDS that all transmission towers and lines are designed to conform to Avian Power Line Interaction Committee (APLIC) standards." This mitigation measure does not appear to specify review and approval of the on-site distribution lines at the Tierra Del Sol or other development locations. The Department suggests that the 35.4 kV collection system lines be installed in an underground configuration to minimize potential avian strikes and electrocutions. The Department suggests the Lead Agency include these lines under their purview as well.

BI-TDS-20/M-BI-PP-14: "If water levels in Wells RM-1, RM-3 and RSD-1 do not drop more than 3 feet below baseline during the first year construction period, monitoring will cease at that time because impacts would be expected to be less than significant." The Department recommends that the monitoring is performed for the entire five-year period to capture varying levels of water consumption (e.g., extended construction, or increased panel washing), and varying climatic conditions (e.g. rainfall, drought, fire, increased dust). Alternatively, mitigation measure M-BI-

**Appendix A**  
**Specific Comments on the Draft Programmatic Environmental Impact Report**  
**For the Soitec Solar Development, San Diego, County**

**SCH# 2012061068**

PP-14 could be modified to specify that the monitoring may cease if the water levels in RM-1, RM-3, and RSD-1 do not drop more than 3 feet below baseline following one year of Operations of Maintenance with usage intervals (e.g., panel washing and irrigation) at the maximum projected/allowable usage. Absent this measurable standard, extended construction, deferred panel washing, or years requiring low levels of water consumptive uses may skew the data collected. Additionally, given the current drought conditions within California, continuing local groundwater use during extended periods of drought may cause an unsustainable drop in water levels that would otherwise go undetected should monitoring be discontinued at the end of the first year.

The PDEIR details that in the event that "... evidence of deterioration persists after the 5-year period, mitigation will consist of off-site wetland/oak woodland credits at a 3:1 ratio" detailed in M-BI-PP-14. The Department recommends mitigating potentially permanent impacts to oak woodland at a minimum of 5:1 ratio. In part, a higher standard should be considered given the resource's lengthy establishment period and slow growth rates. Additionally, if the localized oak woodland is sufficiently stressed to the point that mature specimens are either stressed or die, a low probability for recruitment and volunteer oaks maintaining or establishing themselves exists which could result in generational loss.

*Golden Eagle:*

(Page 1-35) The DPEIR states "...the California Supreme Court recently noted that "an existing conditions analysis may take account of environmental conditions that will exist when the project begins operations; the agency is not strictly limited to those prevailing during the period of EIR preparation. An agency may, where appropriate, adjust its existing conditions baseline to account for a major change in environmental conditions that is expected to occur before project implementation. In so adjusting its existing conditions baseline, an agency exercises its discretion on how best to define such a baseline under the circumstance of rapidly changing environmental conditions." (Neighbors for Smart Rail v. Exposition Metro Line Construction Authority (2013) 57 Cal.4th 439, 452.)" In light of this, the Department recommends that the Lead Agency consider the currently permitted and likely permitted wind and other renewable energy sources in the context of the cumulative loss and future baseline supporting San Diego golden eagle populations. The physical encroachment of wind generating facilities may have a compounding effect on migrating, floating or resident eagles with the added loss of available foraging habitat within the immediate vicinity. We would still recommend that this project be analyzed (based on current conditions) both individually and cumulatively for impacts to golden eagle.

The DPEIR relies on the County's Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources (County of San Diego 2010) in establishing a 4,000-foot buffer around an active golden eagle nests. The 4,000 foot buffer is a guideline from the County's existing South County MSCP, and may not be appropriate in other areas of the County that do not have federal/state permits. Given what is known of the size of territories (Katzner et al, 2012) and influence quality foraging habitat can play for golden eagle, the Department believes that a 4,000-foot golden eagle buffer is not sufficiently protective of golden eagle and their habitat requirements, particularly within open or arid environments. The Department recommends that the Lead Agency coordinate with the Wildlife Agencies in developing protective measures suitable for the East County environment.



**Appendix A**  
**Specific Comments on the Draft Programmatic Environmental Impact Report**  
**For the Soitec Solar Development, San Diego, County**

**SCH# 2012061068**

(Page 2.3 – 114) While no nest locations are known within the project sites, many inactive and active nest and pairs are known within the area and are expected to utilize the project areas for forage and during migratory movements. A recent paper documented the average home range of golden eagle within southern California arid environments. According to Katzner et al (December, 2012), the mean home range of golden eagles in the Mojave Desert ranged from 24 miles to 1741 square miles (Katzner et al). While these findings are specific to the Mojave Desert, it is apparent that golden eagle home range sizes vary considerable based upon a variety of factors including habitat quality. Similar home ranges have been suggested by David Bittner (San Diego Management and Monitoring Program meeting, January, 2014) who suggested that golden eagle territories within San Diego County average between 25 miles to 125 miles, further corroborating the larger home range requirements of golden eagles in arid environments. The added spatial fluctuations are needed to cope with fluctuations in prey sources. Golden Eagle productivity can be, in part, tied to general forage quality. Should insufficient resources be available, they are less likely to breed. Added habitat stressors, whether anthropogenic or otherwise (e.g., drought) are expected to increase the home range size needed to support golden eagle pairs. The analysis for LanEast and LanWest asserts that there would be “no impact” associated with golden eagle (Page 2.3-114). The Department disagrees with making a no impact determination. As mentioned above, the importance of quality of foraging habitat should be stressed and reflected as a mitigation measure. The DPEIR states that the immediately surrounding nest is inactive. The Department is not presuming the permanent loss of a breeding pair at that location, and anticipates, with adequate avoidance and conservation, to have a nesting pair reestablish the territory. The objective of a nesting pair reestablishing this territory is one important consideration of the potential effect of the project on the golden eagle.

(Page 2.3- 124) The DPEIR indicates that nesting success of golden eagle will not be impacted at the Tierra del Sol site “...therefore, the Tierra del Sol solar farm would not impact the nesting success of those species.” due to impacts associated with construction. According to Katzner et al, 2012 and corroborated by Bittner, the quality of suitable foraging habitat greatly influences the success of a particular breeding territory. This suggests that, impacts associated with construction may have an effect on golden eagle nesting success. The Department recommends that the DPEIR include an analysis of this potential effect.

*Swainson’s Hawk:*

(Page 2.3-100-103) While the Department acknowledges that the state-listed Threatened Swainson’s hawk (*Buteo swainsoni*) has not nested within San Diego County within recent history, concern for the species is nevertheless warranted. Southern California has a dwindling breeding population which may utilize the Peninsular Mountain Range as a migratory route. Swainson’s hawks are among the widest ranging species of hawk and structured or opportunistic stopovers are important to the species. The Department believes that the potential for Rugged Solar, LanEast and LanWest to serve as an important stopover (if even only rarely) should be analyzed in the DPEIR. In accordance with Section 2.3.3.1 Guidelines for the Determination of Significance (PAGE 2-3-98, DPEIR), the document has identified thresholds in order for an impact to reach a level of significance. Among these thresholds are included: 1) “The project would impact one or more individuals of a species listed as federally or state endangered or threatened,” and, 2) “The project would result in the loss of functional foraging habitat for raptors. Impacts to raptor foraging habitat are considered significant; however, impacts of less than 5% of the raptor foraging habitat on a project site may be considered less than significant if a biologically based determination can be made that the project would not

**Appendix A**  
**Specific Comments on the Draft Programmatic Environmental Impact Report**  
**For the Soitec Solar Development, San Diego, County**

**SCH# 2012061068**

have a substantial adverse effect on the local long-term survival of any raptor species.” The Department’s position is that the loss of a potential important migratory stopover would directly impact that species, in this case, the state-listed Threatened Swainson’s hawk. While San Diego may not currently host nesting pairs of Swainson’s hawk, absent conservation measures, San Diego County may not contribute to the specie’s life history in the future. Without additional information specific to the use of the Project Site by Swainson’s hawk, the Department is unable to determine the level of project-related impact on the species. Additionally, the Department is concerned regarding the potential loss of foraging habitat for migrating Swainson’s hawk. The loss of a stopover may adversely impact the vigor and success of the species. Additional surveys for Swainson’s hawk should be incorporated into the DPEIR.

*Avian Species:*

(Page 2.3-21) The DPEIR details Weekly bird utilization counts during October 2010 and May 2012, and avian surveys between March 2005 and March 2006, and between September 2007 and September 2008 for developments other than the Project. The Department encourages the Lead Agency to exercise caution in relying on data which is not specific to the Project and possibly outdated. The Department recommends that the Lead Agency base its analysis on recent surveys specific to the Project and each location addressed in the Programmatic DPEIR.

*Bat species:*

The DPEIR acknowledges potentially significant impacts to bat species due to habitat loss but does not analyze the potential for impacts as an ecological trap (Horváth, et al, 2012). Panels may present such a trap by modifying the bats’ prey species’ behaviors or via their own innate recognition of highly reflective surfaces as a body of water (Grief and Siemers, 2010). The Department recommends the DPEIR include additional study of bat usage of the Project area, potential impacts, and include mitigation for any identified significant impacts.

In addition, the Fish and Game Commission has been recently petitioned to list the Townsend’s big-eared bat (*Corynorhinus townsendii*) for formal listing (Office of Administrative Law’s Notice ID #Z2012-1120-01). Fish and Game Code section 2085 extends protections afforded formally listed species to candidate species whereby notice has been given pursuant Fish and Game Code section 2074.4. Please update the DPEIR accordingly for this species.

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**Appendix A**  
**Specific Comments on the Draft Programmatic Environmental Impact Report**  
**For the Soitec Solar Development, San Diego, County**

**SCH# 2012061068**

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